

USB 4-Port Hub



Use this guide to install this
Linksys product:

USBHUB04
USB 4-Port Hub

User Guide

LINKSYS

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- Reorient or relocate the receiving antenna
- Increase the separation between the equipment or device
- Connect the equipment to an outlet other than the receiver's
- Consult a dealer or an experienced radio/TV technician for assistance

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Introduction

Congratulations on your purchase of the **USB 4-Port Hub** from Linksys – the fastest way to connect **Universal Serial Bus** devices to your PC or Macintosh. Plug a mouse or printer into your desktop. Attach a full-sized keyboard to your notebook. Hook up a scanner or digital camera in seconds. If your PC is equipped with a USB port, the USB 4-Port Hub makes connecting multiple USB devices to it a snap!

Ready to run right out of the box, the USB 4-Port Hub lets you access up to four USB devices simultaneously from your computer's USB port, allowing you to take advantage of the latest high-speed, low-cost USB modems, keyboards, scanners, cameras, speakers, and more – all in one easy step. Optimized for Windows 95 and Windows 98, the USB 4-Port Hub is plug-and-play compatible, which means USB devices are configured and ready for use as soon as you plug them in.

Equipped with advanced hotswap technology, the hub even lets you attach or detach USB devices while your computer is on, making it possible to switch devices on the fly!

The 4-Port hub offers blazing access rates of up to **12 million bits per second** – the fastest in the industry – which makes it perfect for speed-hungry devices like USB cameras and scanners.

Rugged and ready for the road, the USB 4-Port Hub is conveniently portable, since it draws its power from your computer's USB port. Got a notebook PC? No problem – just plug in the provided AC power supply to help preserve your computer's battery life.

As your needs grow, you can daisy-chain the USB 4-Port Hub to additional USB hubs – if your needs call for it, you can actually use up to 127 USB devices at the same time! Adding devices to your computer has never been easier!

Some of the hub's features include:

- Access Up to 4 Universal Serial Bus Devices Simultaneously from a Computer's USB Port
- Offers Simultaneous Access to All Devices – Print, Scan, Web Surf, and More at the Same Time
- Fast 12Mbps Data Transfer Rate – Perfect for High-Speed Scanners, Video, Printers, and More
- Daisy-Chain Multiple USB Hubs Together for Easy Future Expansion
- Plug-and-Play Compatible with Windows 95, Windows 98, and MacOS for a Quick Setup
- Fully Hotswappable – Attach or Detach Devices with Power On

- Built-in Data Collision Control -- Protects Data Integrity when Using Multiple Devices
- Runs in Both Bus and Self-Powered Modes

About USB

USB, which is short for **Universal Serial Bus**, is a technology designed to make connecting devices to computers easier. Originally developed in 1996 by a group of computer industry leaders that included Compaq, Digital, IBM, Intel, Microsoft, NEC, and Northern Telecom, USB is quickly becoming the first choice for users who want to add peripherals to their computers.

USB is unique because it is **plug-and-play**, which allows a computer to instantly recognize when a device like a keyboard, mouse, or scanner has been connected to it. Once the device has been recognized, it's ready to go – no special setup is required. Similarly, USB supports **hot-swapping** – the insertion or removal of devices while the computer is turned on. You can swap one device for another without having to power down your system or install any special software – it really is that easy.

Another unique USB feature is its ability to allow multiple devices to be connected to a computer's single USB port. The USB 4-Port Hub, for example, splits a computer's USB port into four USB ports. All four ports can operate simultaneously and independent of each other, allowing easy

access to an enormous array of different devices at the same time.

Some of the devices that the USB 4-Port Hub supports include digital cameras and scanners, joysticks, gamepads, virtual reality headgear and gloves, keyboards, hard drives, mice, modems, printers, speakers, and more.

Hardware Setup

Before installing the hub, make sure you have received all of the following items. If any of the items are damaged or missing, contact your vendor for replacements:

- USB 4-Port Hub
- AC Power Adapter
- 6' USB Cable

After unpacking the hub, follow the steps below to complete the installation.

Step 1

- Plug in the AC power adapter (optional).

The USB 4-Port Hub can run with or without its AC power adapter. If you decide not to use the adapter, the hub will draw its power supply from your computer's USB port.

If you have a notebook computer, or if you have lots of devices connected to your computer, you might want to use the AC power supply -- it can help boost signal strength between a PC and its devices, and if you have a notebook, it will help preserve your computer's battery life.

Some USB devices require more power than the hub can supply in self-powered mode. If you plug a device into your hub and it doesn't work properly, it may need more power. In this case, you

should plug the AC adapter into your hub.

If you decide to use the AC adapter, plug it into the hub's AC power adapter receptacle located on the rear of the hub now.

Step 2

- Plug your computer into the hub.

The USB 4-Port Hub came with a USB cable. One end of the cable has a rectangular plug, which is called an A-type connector. The other end of the cable has a square shaped plug, or B-type connector.

Insert the cable's square B-type plug into the hub's Root Port, which is located on the rear of the hub.



Insert the other end of the cable (the A-type plug) into your computer's USB port. The computer is now connected to the hub.

Step 3

- Plug your USB device(s) into the hub.

The front of the USB hub has four rectangular A-type ports where you can plug in USB devices. To plug in a USB mouse, keyboard, or other device, simply plug its A-type cable into any of the hub's four A-type ports. The installation is complete!



Using the Hub with USB Devices

Using the USB 4-Port Hub with a USB device is easy -- after plugging in the device, just turn it on. Your Windows 95 (revision OSR2 and above), Windows 98, or MacOS computer should automatically detect it. USB technology specifically allows devices to be inserted or removed while your PC's power is on -- it's true plug-and-play!

Note: Your operating system must have USB support in order for you to utilize the USB 4-Port Hub. For instance, some earlier versions of Windows 95 do not support USB. If you are not sure whether or not USB is supported by your operating system, consult the documentation that came with the operating system.

LED Indicators

While you are using your USB 4-Port Hub, one of the two power LEDs will be lit. Depending on whether or not you have chosen to use your hub's AC power adapter, you will see one of the following light up.

Bus Powered Indicates that the USB Hub is in operation and is drawing power from your PC.

Self Powered Indicates that the USB Hub's AC power adapter is connected and is feeding power to the Hub and all devices connected to it. If the self powered LED is ON, the hub is not drawing power from your PC.

There are also 4 port-specific LEDs on the hub. Each LED will light up if the port below it is active and has a device attached to it.

Troubleshooting

1. *I plugged a device or other hub into my hub and it doesn't work.*

First, verify that all of your cabling is connected properly. See page 6 for help. Next, verify that you are using an operating system that supports USB. Some versions of Windows 95, Windows NT and a number of Unix-based operating systems do not support USB.

Some devices require more power than the hub can supply in bus-powered mode. If a device doesn't work and you hub is in bus-powered mode, plug in the AC adapter.

If you are connecting a device into your hub via a serial-to-USB or parallel-to-USB converter, make sure that the device does not require any more than 500mA of power. 500mA is the maximum amount of power that a USB port can supply. Any device that needs more than 500mA of power cannot be accessed through a USB port.

2. *The computer doesn't recognize the hub or any other USB device.*

The operating system has to support USB. Windows 95 OSR2, Windows 98, and MacOS 8.1 or higher support USB.

Also, the USB ports on your PC may be disabled in the BIOS. Use the BIOS menu to enable them.

Specifications

Standard	OHCI, UHIC, and USB Standard v1.0
Ports	1 Root Port; 4 Device Ports
Speed	12Mbps (High Speed) 1.5Mbps (Low Speed) Depending on Device Requirements
Data Modes	Isochronous and Asynchronous
Max Devices	127 (when multiple hubs are daisy-chained together)
LEDs	Bus Power, Self Power, Activity per port
Power	DC6V, 2.6A
Current	500mA per port (maximum)
Temperature	5°C - 40°C for Safe Operation
Humidity	0% - 80% for Safe Operation
Dimensions	4.0" x 3.75" x 1.0"
Weight	3.7 oz.

Customer Support

For help with the installation or operation of your **USB 4-Port Hub**, contact Linksys Customer Support at one of the phone numbers or Internet addresses below.

Customer Support	949-261-1288
Fax	949-261-8868
Bulletin Board	949-261-2888 (33.6K, 8-N-1)
Email	support@linksys.com
Web	http://www.linksys.com
FTP Site	ftp.linksys.com



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